

Remarks

Claims 45, 60, 73, 85, and 86 35 USC §112, first paragraph, as failing to comply with the written description requirement. In particular these claims have the limitation of “the received samples including cyclic redundancy are converted into the plurality of frequency domain samples.” The Examiner states that there is no support for this limitation in the specification.

The Applicants respectfully disagree. In particular, the last paragraph beginning on page 17 states:

In order to create the appearance of a circular channel, each symbol block to be transmitted may have the same set of known chips at both the beginning and at the end of the symbol block. At the receiver, the FFT can then be carried out over the baseband chip-level sequence plus the L_p known chips at the end of the symbol block. This situation is shown in the embodiment A of FIG. 6, where each block consists of $2L_p + N$ chips, and where K is the number of CDMA symbol intervals within a symbol block, N is the Walsh code length, and L_p is the prefix length. (*emphasis added*).

As stated by the Applicants, the L_p known chips may contain cyclic redundancy. Specifically, the text beginning on page 7, line 2 states that

cyclic redundancy can be one of the following:

1. A cyclic prefix, which is a repetition of the last L_p chips of a baseband chip-level sequence, inserted at the beginning of the chip-level sequence;
2. A cyclic postfix, which is a repetition of the first L_p chips of a baseband chip level sequence, inserted at the end of the chip-level sequence;
3. A combination of a postfix of length L_{p1} and a prefix of length L_{p2} . In one embodiment of this method, L_{p1} and L_{p2} can be chosen to satisfy $(L_{p1} + L_{p2}) = L_p$.

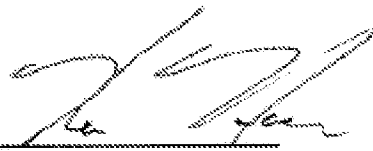
4. A null cyclic postfix, null cyclic prefix, or a combination of a null cyclic prefix and postfix. A null cyclic prefix is a prefix consisting of chips that are all zero in amplitude. If the cyclic redundancy is composed of zero chips, then the long code can be applied to the entire baseband chip-level sequence, including the cyclic redundancy.
5. *Lp known chips* repeated before and after the baseband chip-level sequence. For another embodiment of the invention, the known chips can be pilot or other predetermined chips recognized by the receiver; or
6. A block of known chips, which is inserted either before or after each of a plurality of baseband chip-level sequences. For one embodiment, the block of known chips can be inserted before the first baseband chip-level sequence $s[i,1]$, and before the second baseband chip-level sequence $s[i,2]$, and so forth. This method inserts the same block of known chips at a plurality of locations in the transmitted signal. The long code has no effect on the values of the known chips that are transmitted since the long code is not applied to these known chips. (*emphasis added*)

In summary, the Applicants specifically state that *the FFT can be carried out over the baseband chip-level sequence plus the Lp known chips at the end of the symbol block*. The Applicants also state that cyclic redundancy can be the *LP* known chips. Therefore, the Applicants' specification specifically teaches that the received samples including cyclic redundancy may be converted into the plurality of frequency domain samples. Thus, claims 45, 60, 73, 85, and 86 are allowable.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references. As the Applicant has overcome all substantive rejections given by the Examiner the Applicant contends that this Amendment, with the above discussion, overcomes the Examiner's rejections to the pending claims. Therefore, the Applicant respectfully requests allowance of the application. If the Examiner is of the opinion that any issues regarding the status of the claims remain after this response, the Examiner is

invited to contact the undersigned representative to expedite resolution of the matter. Finally, please charge any fees (including extension of time fees) or credit overpayment to Deposit Account No. 502117.

Respectfully Submitted,
Baum, ET AL.

by: 

Kenneth A. Haas
Reg. No. 42,614
Phone: (847) 576-6937
FAX: (847) 576-3750